

011442



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

U/R

D169-841-015
Job Sheet 198806



Part No: D169-841-015

Job Qty: 1 pcs

Part Name: AW169 Lower Cutter



Part Weight: 0 lbs

Job Created: 8/6/19

Due Date: 8/12/19

Type: SOLD

Status: New

Job Tracking No:

Created By: Marie Lajeunesse

Description:

Note: URF 16-692 DWG REV D IPP REV:A NEW ISSUE 13-07-17 JLM VERIFIED BY:DD IPP REV:B 15.07.03 AS
PER CHG002 ecn15-595 DD VERF:JLM

Ship Via:

POSITIVE RECALL

EFFECTIVE 10/25/19 AUTH: SAN

RELEASED 55 DATE AUG 29, 2019

9-89 Priority: Medium
Concession Required

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Packaging 1 - Pick Kit	1 pcs	8/12/19		0.00	0.00	Packaging 1 - 1		
							Packaging 1 - 2		
							Packaging 1 - 3		
							Packaging 1 - 4	NL.	
							Packaging 1 - 5		
							Packaging 1 - 6		
							Packaging 1 - 7		
							Packaging 1 - 8		
							Packaging 1 - 9		
							Packaging 1 - 10		
							Packaging 1 - 11		
							Packaging 1 - 12		
							Packaging 1 - 13		
							Packaging 1 - 14		
							Packaging 1 - 15		
							Packaging 1 - 16		
							Packaging 1 - 17		
							Packaging 1 - 18		
							Packaging 1 - 19		
							Packaging 1 - 20		
							Packaging 1 - 21		
							Packaging 1 - 22		
							Packaging 1 - 23		
							Packaging 1 - 24		
							Packaging 1 - 25		
							Packaging 1 - 26		
							Packaging 1 - 27		
							Packaging 1 - 28		
							Packaging 1 - 29		
							Packaging 1 - 30		



Dart Aerospace Ltd.
1270 Aberdeen Street
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CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S209614



Part: D169-841-015

Job No: 198806

Serial No/Batch: S209614

Revision:

Inspector:

Exp Date:

Instructions: URF 16-692

Date: 08/28/19

Plex 8/6/19 1:59 PM Dart.lajeunesse.marie

8/6/2019

[Dart Hawkesbury] Job Sheet - Lajeunesse, Marie

				Packaging 1 - 31	
				Packaging 1 - 32	
				Packaging 1 - 33	
				Packaging 1 - 34	
				Packaging 1 - 35	
				Packaging 1 - 36	
120 QC 4	1 pcs	8/12/19	0.00 0.00	QC 4 - 28	MMA 8/28/2019
				QC 4 - 58	
				QC 4 - 69	
				QC 4 - 9	
				QC 4 - 46	
				QC 4 - 68	
				QC 4 - 72	
				QC 4 - 74	
				QC 4 - 75	
130 Packaging 1-1 - Pick Kit - B4B	1 pcs	8/12/19	0.00 0.00	Packaging 1 - 1 - B4B	MMA 8/29/2019
				Packaging 1 - 2 - B4B	
				Packaging 1 - 3 - B4B	
				Packaging 1 - 4 - B4B	
				Packaging 1 - 5 - B4B	
				Packaging 1 - 6 - B4B	
				Packaging 1 - 7 - B4B	
				Packaging 1 - 8 - B4B	
				Packaging 1 - 9 - B4B	
				Packaging 1 - 10 - B4B	
				Packaging 1 - 11 - B4B	
				Packaging 1 - 12 - B4B	
				Packaging 1 - 13 - B4B	
				Packaging 1 - 14 - B4B	
				Packaging 1 - 15 - B4B	
				Packaging 1 - 16 - B4B	
				Packaging 1 - 17 - B4B	
				Packaging 1 - 18 - B4B	
				Packaging 1 - 19 - B4B	
				Packaging 1 - 20 - B4B	
				Packaging 1 - 21 - B4B	
				Packaging 1 - 22 - B4B	
				Packaging 1 - 23 - B4B	
				Packaging 1 - 24 - B4B	
				Packaging 1 - 25 - B4B	
				Packaging 1 - 26 - B4B	
				Packaging 1 - 27 - B4B	
				Packaging 1 - 28 - B4B	
				Packaging 1 - 29 - B4B	
				Packaging 1 - 30 - B4B	
				Packaging 1 - 31 - B4B	
				Packaging 1 - 32 - B4B	
				Packaging 1 - 33 - B4B	
				Packaging 1 - 34 - B4B	
				Packaging 1 - 35 - B4B	
				Packaging 1 - 36 - B4B	
135 DC - 1 - B4B	1 pcs	8/12/19	0.00 0.00	DC - 1 - B4B	DAS 21 AUG 28 2019
				DC - 2 - B4B	
140 QC 21 - FG	1 pcs	8/12/19	0.00 0.00	QC 21 - FG - 21	DAS 21 AUG 28 2019
				QC 21 - FG - 70	
				QC 21 - FG - 53	
Part Op 110 - (Pick Kit)					
Descriptions: 120 - (QC4- 100% Inspect kits for completeness)					
130 - (Pick Kit) Identify and pack for shipping as per PPP D169-841-015					

MMU
8/28/2019

MMU
8/29/2019

AUG 28 2019

AUG 28 2019

See Marcel

for
ConcessionPOSITIVE
RECALLDAS
55

AUG 29, 2019

8/6/2019

[Dart Hawkesbury] Job Sheet - Lajeunesse, Marie

135 - (Document Control) "Photocopy bluefiles per D169-841 Cable Cutter System and create labels per 6F9540V00231 CHG002"

140 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D4842-041	Lower Cutter Assembly	1 pcs (1 ea) ✓	110-Packaging 1 - Pick Kit	Sevion
MS21042L08	Nut	5 Ea (5 ea)	110-Packaging 1 - Pick Kit	Sevion
MS27039-08-24	Screw (MS27039-0824)	5 Ea (5 ea)	110-Packaging 1 - Pick Kit	Sevion
NAS1149FN832P	Washer (AN960-8)	10 Ea (10 ea)	110-Packaging 1 - Pick Kit	Sevion

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Packaging 1 - Pick Kit	D4842-041	1	1	0
	MS21042L08	5	611	0
	MS27039-08-24	5	139	0
	NAS1149FN832P	10	1,756	0

Part Specifications

Specifications could not be found.

Plex 8/6/19 1:59 PM Dart.lajeunesse.marie



Entered: _____

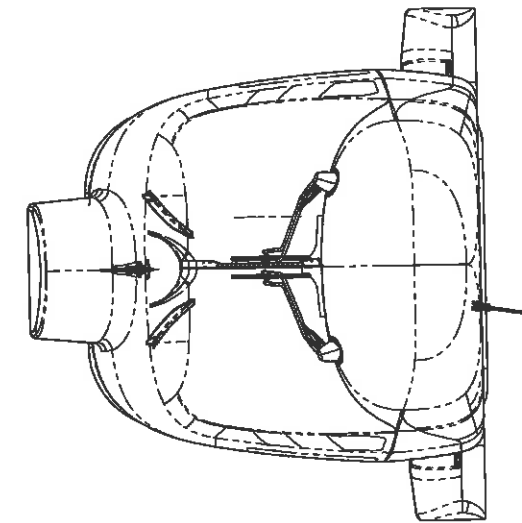
Date: _____

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

Route update only ☐

NCR No. _____

Job: <u>198806</u>		DISPOSITION		DEPARTMENT/PROCESS									
Part No. <u>D169-841-015</u>		Rework Scrap Use-as-is		Skid-tube Machining Large Fab		Cross tube Small Fab Finishing		Eng. (Non-AW) Prod. Eng. Coord. Rec/Store/Packaging		Engineering Water Jet Supplier Quality			
Date: _____		Sequence #: _____		QTY Affected: _____		DAB (Q51042) 51 19/02/13 9-89							
Description Work Order Deviation				Disposition									
Concession required before shipping to the following Parts -D4842-1 -D4842-3 -D4842-4				Acceptable to ship with Concession								Completed By	
												Lead hand / Supervisor	
												QC / QA Coordinator	
Root Cause				FAULT CATEGORY									
Operator				Pressure/Forced		Contamination		Power Loss/Surge		Positioned Wrong			
Manufacturing Process				Bending		Misaligned/off center		Folio/Program		Outside Tolerance			
Equip/Tooling				Crushing		BOM/Route		Grain Direction		Drawing			
Handling/Preservation				Cracks		Broken/Damage/Defect		Weld		Finish			
Material				Crimp/Kink/Ripple/Wave/Twist		Incomplete/Unclear Instructions		Wrong Stock Pulled		Part Lost/Missing			
Product Improvement				Marks/Chatter		Drill Holes		Out of Sequence		Misread			
Process Improvement				Mislabeled		Fit/Function		Off-set/Set-up					
Human Factors				Other/Details:									



D169-841-011 AW169 CABLE CUTTER SYSTEM

QTY	QTY	QTY	DART	DESCRIPTION	AGUSTA WESTLAND PIN
-011	-013	-015	PIN		
X			D169-841-011	CABLE CUTTER SYSTEM	TBD
1	X		D169-841-013	UPPER CUTTER/DEFLECTOR KIT	8F9540V00131
1		X	D169-841-015	LOWER CUTTER KIT	8F9540V00231
			D4821-1	WINDSHIELD DEFLECTOR	TBD
			D4822-1	UPPER DEFLECTOR LH	TBD
			D4822-2	UPPER DEFLECTOR RH	TBD
			D4840-041	UPPER CUTTER ASSY	TBD
			D4857-041	WIPER DEFLECTOR ASSY	TBD
			MS27038-1-12	SCREW	N/A
			TBD	FASTENERS	N/A
			D4842-041	LOWER CUTTER ASSY	TBD
			MS21042L08	LOCKNUT	N/A
			MS27038-0824	SCREW	N/A
			NAS1148F832P	WASHER	N/A

REV.	DESCRIPTION	DATE
A	NEW RELEASE	13.07.08
B		DB
C		DW
D		AJS
E		AJS
F		AJS
G		AJS
H		AJS
I		AJS
J		AJS
K		AJS
L		AJS
M		AJS
N		AJS
O		AJS
P		AJS
Q		AJS
R		AJS
S		AJS
T		AJS
U		AJS
V		AJS
W		AJS
X		AJS
Y		AJS
Z		AJS

APPROVED

DESIGN	DB	AJS	DATE
DRAWN	CP	JLM	15.06.12
CHECKED	CP	JLM	15.06.12
MFG. APPR.	CP	JLM	15.06.12
DE APPR.	CP	JLM	15.06.12
DATE	15.06.12		

DATE 15.06.12

AW169 CABLE CUTTER SYSTEM

REV. D SHEET 1 OF 2

SCALE NTS

AW169 CABLE CUTTER SYSTEM

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AW169 CABLE CUTTER SYSTEM



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
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Container Trace

S208797 Container Trace - Upstream

Output Container No	Depleted Serial No	Status	Part No/Material	Operation Code	Op No	Depleted Date	Depleted Qty	Unit	Location	Serial No/Batch	Job No	Workcenter Code	Manufacturer Part No	Manufacturer Code
S129443	S129446	Stock	M7075T6S1.000X5.000	Receive Ft	100	11/20/2018 10:57 AM	12.0400	ft	MAT					
S154861	S129443	Allocated	M7075T6S1.000X5.000	Receive Ft	100	2/19/2019 3:54 PM	3.6250	ft	Bandsaw - 1	PO041410				
S154870	S154861	Allocated	M7075T6S1.000X5.000	Bandsaw - 1	100	2/19/2019 4:04 PM	3.6240	ft	Bandsaw - 1	PO041410	189787	Bandsaw - 1		
S170367	S132658	Stock	MSTEEL-A2-B0.500X1.250	Receive Ft	100	4/8/2019 10:52 AM	23.1600	ft	MAT009-F	S132658				
S170370	S132658	Stock	MSTEEL-A2-B0.500X1.250	Receive Ft	100	4/8/2019 10:54 AM	0.1600	ft	MAT009-F	S132658				
S170371	S170367	Allocated	MSTEEL-A2-B0.500X1.250	Bandsaw - 1	100	4/8/2019 10:54 AM	23.0000	ft	Bandsaw - 1	S132658	192306	Bandsaw - 1		
S170371	S170370	Allocated	MSTEEL-A2-B0.500X1.250	Bandsaw - 1	100	4/8/2019 10:54 AM	0.1600	ft	Bandsaw - 1	S132658	192306	Bandsaw - 1		
S186338	S173627	Stock	M7075T6S0.375X5.000	Receive Ft	100	6/2/2019 7:51 AM	6.5040	ft	MAT004	S173627				
S186339	S186338	Allocated	M7075T6S0.375X5.000	Bandsaw - 1	100	6/2/2019 7:52 AM	6.5040	ft	Bandsaw - 1	S173627	194845	Bandsaw - 1		
S188556	S183848	Allocated	M7075T6S1.000X5.000	Receive Ft	100	6/7/2019 1:02 PM	4.8240	ft	Bandsaw - 1	S183848				
S188558	S183848	Allocated	M7075T6S1.000X5.000	Receive Ft	100	6/7/2019 1:04 PM	0.0420	ft	Bandsaw - 1	S183848				
S188559	S188556	Allocated	M7075T6S1.000X5.000	Bandsaw - 1	100	6/7/2019 1:04 PM	4.7820	ft	Bandsaw - 1	S183848	193033	Bandsaw - 1		
S188559	S188558	Allocated	M7075T6S1.000X5.000	Bandsaw - 1	100	6/7/2019 1:04 PM	0.0420	ft	Bandsaw - 1	S183848	193033	Bandsaw - 1		
S199842	S170371	Stock	646.9711	QC 21 - SA	190	7/23/2019 1:07 PM	20.0000	pcs	CCK107	S170371	192306			
S199843	S199842	Allocated	646.9711	Packaging 1 - Pick Kit	100	7/23/2019 1:08 PM	20.0000	pcs	Packaging 1 - 9	S170371	197335	Packaging 1 - 9		
S200813	S188559	Allocated	D4842-3	Conventional Mill - 1	115	7/26/2019 10:49 AM	8.0000	pcs	Conventional Mill - 1	S188559	R198348	Conventional Mill - 1		
S206333	S193124	Allocated	MS21042L08	Receive Ea	100	8/16/2019 10:53 AM	5.0000	Ea	Packaging 1 - 22	S193124				
S206334	S192374	Stock	MS27039-08-24	Receive Ea	100	8/16/2019 10:55 AM	5.0000	Ea	ST277	S192374				
S206335	S191300	Stock	NAS1149FN832P	Receive Ea	100	8/16/2019 10:57 AM	10.0000	Ea	ST263	S191300				
S208920	S199843	Stock	D4839-1	QC 21 - SA	130	8/26/2019 3:33 PM	6.0000	pcs	CCK128	S199843	197335			
S208925	S205000	Stock	MS21042L08	Receive Ea	100	8/26/2019 3:34 PM	24.0000	Ea	ST303	S205000				
S208926	S204996	Stock	MS27039-08-19	Receive Ea	100	8/26/2019 3:34 PM	24.0000	Ea	GA015	S204996				
S208927	S191300	Stock	NAS1149FN832P	Receive Ea	100	8/26/2019 3:34 PM	48.0000	Ea	ST263	S191300				
S208985	S154870	Stock	D4842-4	QC 21 - SA	190	8/26/2019 3:53 PM	4.0000	pcs	Concession	S154870	189787			
S208986	S200813	Concession	D4842-3	QC 21 - SA	190	8/26/2019 3:53 PM	4.0000	pcs	Concession	S200813	R198348			
S208989	S208925	Allocated	MS21042L08	Packaging 1 - Pick Kit	100	8/26/2019 4:00 PM	24.0000	Ea	Packaging 1 - 9	S205000	198839	Packaging 1 - 9		
S208989	S208926	Allocated	MS27039-08-19	Packaging 1 - Pick Kit	100	8/26/2019 4:00 PM	24.0000	Ea	Packaging 1 - 9	S204996	198839	Packaging 1 - 9		
S208989	S208927	Allocated	NAS1149FN832P	Packaging 1 - Pick Kit	100	8/26/2019 4:00 PM	48.0000	Ea	Packaging 1 - 9	S191300	198839	Packaging 1 - 9		
S208989	S208919	Allocated	D4839-1	Packaging 1 - Pick Kit	100	8/26/2019 4:00 PM	2.0000	pcs	Packaging 1 - 9	S191429	198839	Packaging 1 - 9		
S208989	S208920	Allocated	D4839-1	Packaging 1 - Pick Kit	100	8/26/2019 4:00 PM	6.0000	pcs	Packaging 1 - 9	S199843	198839	Packaging 1 - 9		
S208989	S186339	Allocated	D4842-4	Packaging 1 - Pick Kit	100	8/26/2019 4:00 PM	4.0000	pcs	Packaging 1 - 9	S186339	198839	Packaging 1 - 9		
S208989	S208986	Allocated	D4842-3	Packaging 1 - Pick Kit	100	8/26/2019 4:00 PM	4.0000	pcs	Packaging 1 - 9	S200813	198839	Packaging 1 - 9		

S209797 Container Trace - Upstream														
Output Container No	Depleted Serial No	Status	Part No/Material	Operation Code	Op No	Depleted Date	Depleted Qty	Unit	Location	Serial No/Batch	Job No	Workcenter Code	Manufacturer Part No	Manufacturer Code
S208989	S208985	Allocated	D4842-041	Packaging 1 - Pick Kit	100	8/26/2019 4:00 PM	4.0000	pcs	Packaging 1 - 9	S154870	198839	Packaging 1 - 9		
S209611	S208989	Concession	D4842-041	QC 21 - SA	200	8/28/2019 10:38 AM	1.0000	pcs	Concession	S208989	198839			
S209614	S206333	Allocated	MS21042L08	Packaging 1 - Pick Kit	110	8/28/2019 10:39 AM	5.0000	Ea	Packaging 1 - 3	S193124	198806	Packaging 1 - 3		
S209614	S206334	Allocated	MS27039-08-24	Packaging 1 - Pick Kit	110	8/28/2019 10:39 AM	5.0000	Ea	Packaging 1 - 3	S192374	198806	Packaging 1 - 3		
S209614	S206335	Allocated	NAS1149FN832P	Packaging 1 - Pick Kit	110	8/28/2019 10:39 AM	10.0000	Ea	Packaging 1 - 3	S191300	198806	Packaging 1 - 3		
S209614	S209611	Allocated	D4842-041	Packaging 1 - Pick Kit	110	8/28/2019 10:39 AM	1.0000	pcs	Packaging 1 - 3	S208989	198806	Packaging 1 - 3		
S209797	S209614	Allocated	D169-841-015	Packaging 1 - Pick Kit	100	8/28/2019 2:21 PM	1.0000	pcs	Packaging 1 - 2	S209614	197313	Packaging 1 - 2		

S209797 Details						
Part No	Operation	Material	Status	Quantity	Net Weight	Add Date
6F9540V00231	QC 21 - FG		Concession	1.0000	0.0000	8/28/2019 2:22 PM
						Michael Giroux
						197313
						Concession
						S209797

Plex 8/28/2019 3:04 PM dart.Lacelle.Linda

		CONCESSION				Pag. 1 of 2	
Manuf Doc N	AWC-024	Date	August 29, 2019	AW Doc N		Purchase Order	4801939434
AW P/N	6F9540V00231	S/N / Batch Number	S209797	Grade	A	AW Drawing Issue	B
Description	Protector, CCP Lower Assembly			Batch Qty	1	Defective Qty	1
Manufacturer	Dart Aerospace LTD			Model	AW169		
Defect(s) Description							
- Leonardo has informed Dart that there are interference issues installing the lower cable cutter D4842-041 (D4842-3 and D4842-4) onto the Leonardo interface bracket - The grain direction on the D4842-1 (D4842-041 Lower Cutter Deflector), Deflector was deviated from the approved Data. The proposed change to the drawing is attached in engineering evaluation.							
				Department Quality Assurance	Inspector DAS 55 9-89 DAS-55-9-89	Signature  Marcel Daviau	Date Aug 29, 2019
Defect(s) Cause							
- The Lower Cutter body has a dimension of 0.43 +0.01/-0.00. This dimension was reported as part of the approved FAI and has been met with all delivered product - Dart Hawkesbury Design Engineer has modified the approved drawing to allow for manufacturing to minimize in material waste.							
				Department Quality Assurance	Inspector DAS 55 9-89 DAS-55-9-89	Signature  Marcel Daviau	Date Aug 29, 2019
Corrective Action						Complete Before	
- In order to mitigate the interference issue for Leonardo, Dart is proposing removing 0.010" (0.254 mm) from each face of the lower cutter body for a total gain of 0.020" (0.508 mm). - Dart Aerospace HBY requesting drawing update to allow for grain direction change on D4842-1							
				Department Quality Assurance	Inspector DAS 55 9-89 DAS-55-9-89	Signature  Marcel Daviau	Date Aug 29, 2019

For "MANUFACTURER" SUPPLIERS ONLY

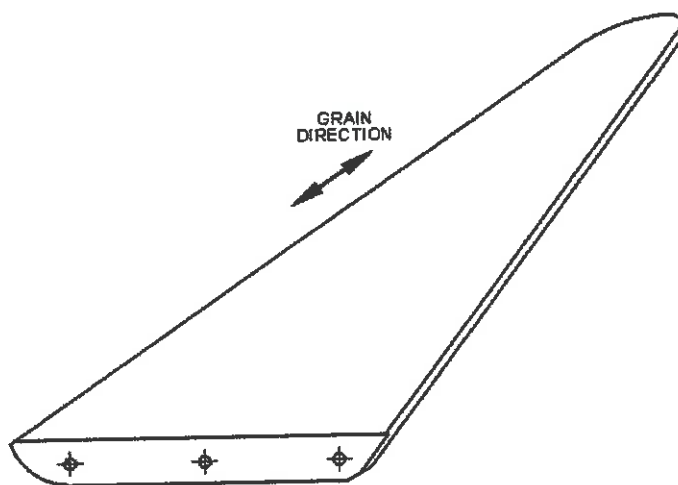
ENGINEERING evaluation and proposal

Engineering evaluation

Investigation report
Compliance report

n: NCR18-6764
n... N/A.....

1. Dart's position is that this change will not impact the structural substantiation presented in Report DA169-4 for the lower cutter body since this is not a section with the lowest margin. Therefore removing 0.010" from each part will not impact the structural integrity of the lower cutter assembly. With the tolerance stack-up the lower cutter body would measure 0.84" (21.34 mm) to 0.88" (22.35 mm) which provides an additional 0.002" for variance of the sealant.
2. Grain direction was rotated 56° to align with the leading edge of the deflector. This orientation allows for a smaller raw material blank size and significantly reduce material scrap. The grain direction is still effectively perpendicular to the bending plane from cable loads. The effect on strength is insignificant.



	Defect effects		Limitations
	Before any repair	After any repair	
	☐ yes	☐ yes ☐ no	☐ yes (specify) ☒ no
Safety	☐ yes	☐ yes ☐ no	
Life	☐ yes	☐ yes ☐ no	
Strength	☐ yes	☐ yes ☐ no	
Performances	☐ yes	☐ yes ☐ no	
Interchangeability	☐ yes	☐ yes ☐ no	
Reliability	☐ yes	☐ yes ☐ no	
Maintainability	☐ yes	☐ yes ☐ no	
Installability	☐ yes	☐ yes ☐ no	
Testability	☐ yes	☐ yes ☐ no	
Only aspect	☐ yes	☐ yes ☐ no	
Repair Proposal			Decision to use ☐ Use repaired with specific repair ☐ Use repaired with known repair ☐ Use as is ☐ Use repaired for tests (see Limitations) ☐ Use as is for tests (see Limitations) ☐ Scrap
Concession Classification		☒ Major ☐ Minor	Submit after repair ☐ yes ☐ no

PRINTING DATE AND STATUS 09.09.2019 Assigned to QC repair result



Supplier Concession

PAGE
2 of 2

PLANT
Vergiate

Supplier MC N.

AWC-024/01

Date

03.09.2019

AW

400000085333

Purchase Order

4801939434

		CONCESSION				Pag. 1 of 2	
Manuf. Doc N	AWC-024	Date	August 29, 2019	AW Doc. N		Purchase Order	4801939434
AW P/N	6F9540V00231	S/N / Batch Number	S209797	Grade	A	AW Drawing Issue	B
Description	Protector, CCP Lower Assembly			Batch Q ty	1	Defective Q ty	1
Manufacturer	Dart Aerospace LTD			Model	AW169		
Defect(s) Description							
1. Leonardo has informed Dart that there are interference issues installing the lower cable cutter D4842-041 (D4842-3 and D4842-4)onto the Leonardo interface bracket 2. The grain direction on the D4842-1 (D4842-041 Lower Cutter Deflector), Deflector was deviated from the approved Data. The proposed change to the drawing is attached in engineering evaluation.							
				Department	Inspector	Signature	Date
				Quality Assurance	DAS 55 9-89 DAS-55-9-89	 Marcel Daviau	Aug 29, 2019
Defect(s) Cause							
1. The Lower Cutter body has a dimension of 0.43 +0.01/-0.00. This dimension was reported as part of the approved FAI and has been met with all delivered product 2. Dart Hawkesbury Design Engineer has modified the approved drawing to allow for manufacturing to minimize in material waste.							
				Department	Inspector	Signature	Date
				Quality Assurance	DAS 55 9-89 DAS-55-9-89	 Marcel Daviau	Aug 29, 2019
				Complete Before			
Corrective Action							
1. In order to mitigate the interference issue for Leonardo, Dart is proposing removing 0.010" (0.254 mm) from each face of the lower cutter body for a total gain of 0.020" (0.508 mm). 2. Dart Aerospace HBY requesting drawing update to allow for grain direction change on D4842-1							
				Department	Inspector	Signature	Date
				Quality Assurance	DAS 55 9-89 DAS-55-9-89	 Marcel Daviau	Aug 29, 2019

For "MANUFACTURER" SUPPLIERS ONLY

ENGINEERING evaluation and proposal

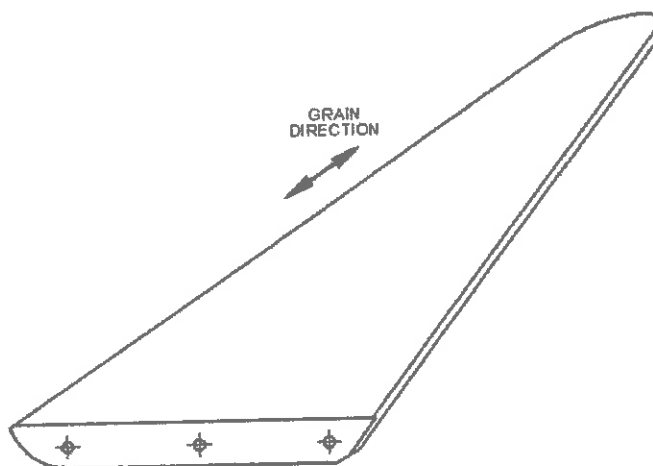
Engineering evaluation

Investigation report
Compliance report

n: NCR18-6764
n... N/A.....

1. Dart's position is that this change will not impact the structural substantiation presented in Report DA169-4 for the lower cutter body since this is not a section with the lowest margin. Therefore removing 0.010" from each part will not impact the structural integrity of the lower cutter assembly. With the tolerance stack-up the lower cutter body would measure 0.84" (21.34 mm) to 0.88" (22.35 mm) which provides an additional 0.002" for variance of the sealant.

2. Grain direction was rotated 56° to align with the leading edge of the deflector. This orientation allows for a smaller raw material blank size and significantly reduce material scrap. The grain direction is still effectively perpendicular to the bending plane from cable loads. The effect on strength is insignificant.



Defect effects			Limitations
	Before any repair	After any repair	
	☐ yes	☐ yes ☐ no	☐ yes (specify) ☒ no
Safety	☐ yes	☐ yes ☐ no	
Life	☐ yes	☐ yes ☐ no	
Strength	☐ yes	☐ yes ☐ no	
Performances	☐ yes	☐ yes ☐ no	
Interchangeability	☐ yes	☐ yes ☐ no	
Reliability	☐ yes	☐ yes ☐ no	
Maintainability	☐ yes	☐ yes ☐ no	
Installability	☐ yes	☐ yes ☐ no	
Testability	☐ yes	☐ yes ☐ no	
Only aspect	☐ yes	☐ yes ☐ no	
Repair Proposal 			Decision to use ☐ Use repaired with specific repair ☐ Use repaired with known repair ☐ Use as is ☐ Use repaired for tests (see Limitations) ☐ Use as is for tests (see Limitations) ☐ Scrap
Concession Classification ☒ Major ☐ Minor		Submit after repair	☐ yes ☐ no